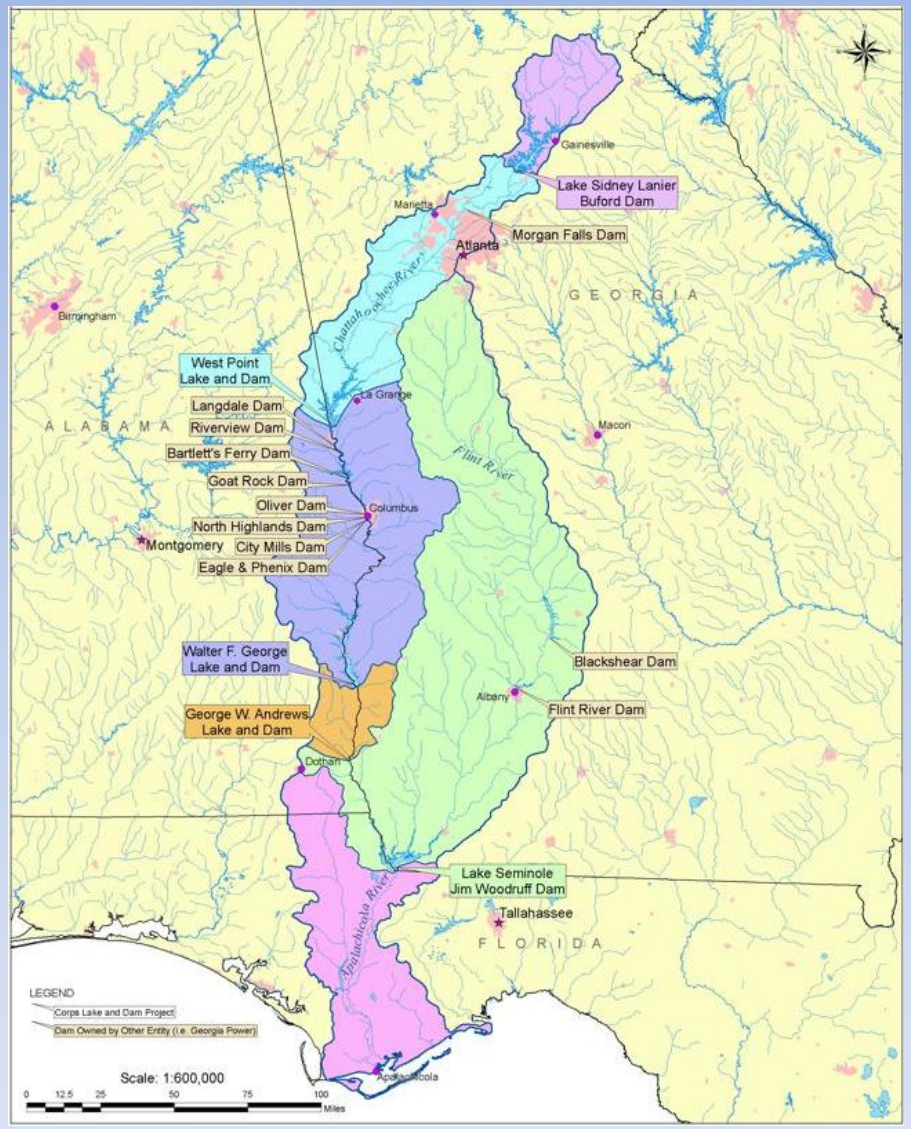
National Integrated Drought Information System

Southeast US Pilot for Apalachicola-Flint-Chattahoochee River Basin

4 October 2011



Current drought status from Drought Monitor

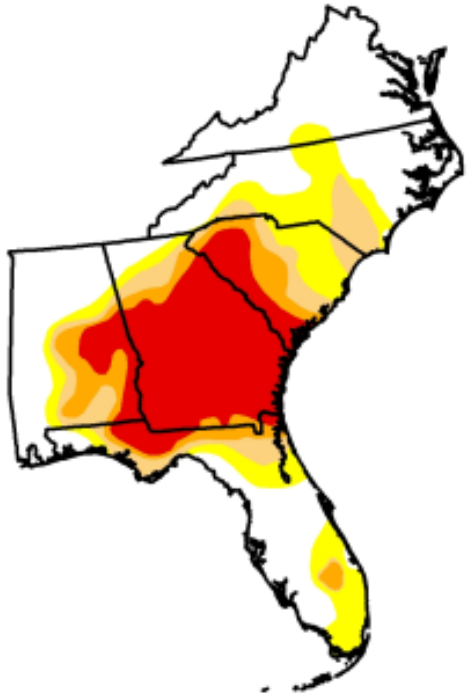
U.S. Drought Monitor

September 27, 2011
Valid 7 a.m. EST

Southeast

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	42.24	57.76	41.82	31.77	23.48	0.00
Last Week (09/20/2011 map)	39.31	60.69	47.98	32.53	24.16	0.00
3 Months Ago (06/28/2011 map)	15.61	84.39	62.63	44.22	29.11	14.73
Start of Calendar Year (12/28/2010 map)	23.01	76.99	51.84	23.55	5.63	0.00
Start of Water Year (09/28/2010 map)	18.18	81.82	38.04	10.32	0.90	0.00
One Year Ago (09/21/2010 map)	14.35	85.65	47.44	11.74	0.90	0.00



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://drought.unl.edu/dm

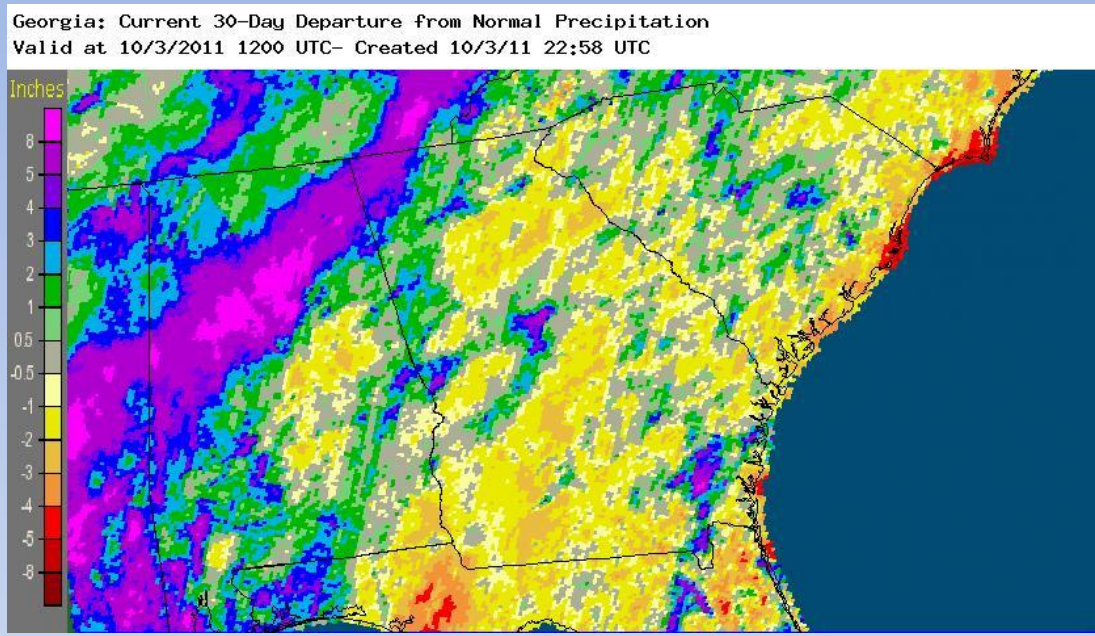
USDA National Drought Mitigation Center

Released Thursday, September 29, 2011
Michael Brewer, National Climatic Data Center, NOAA

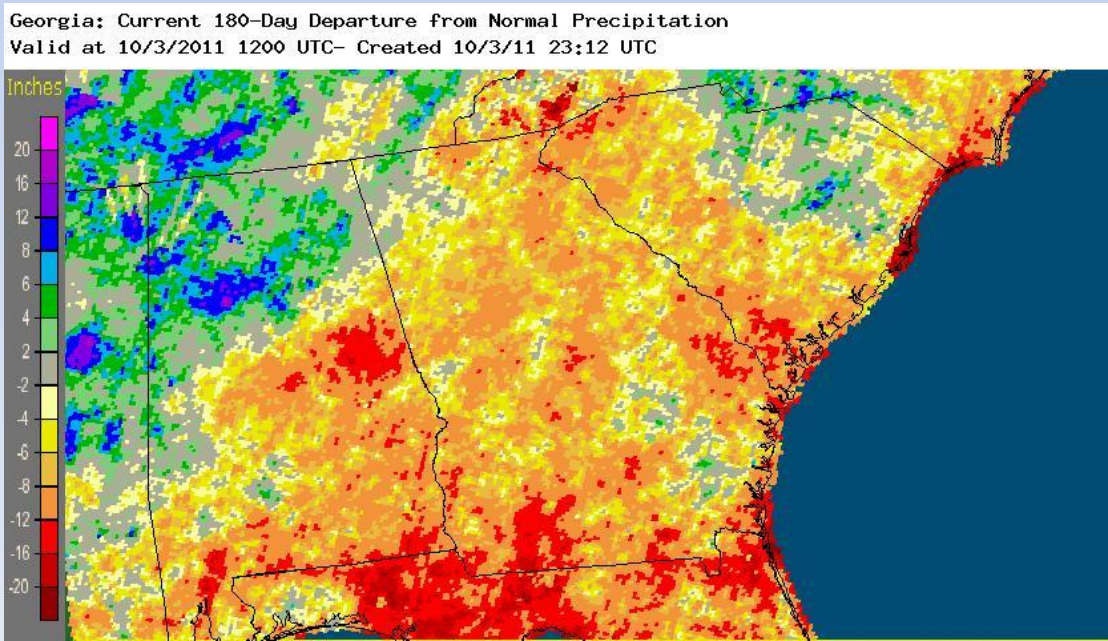
http://www.drought.unl.edu/dm/monitor.html

Cumulative Rainfall Deficits

Past 30 days

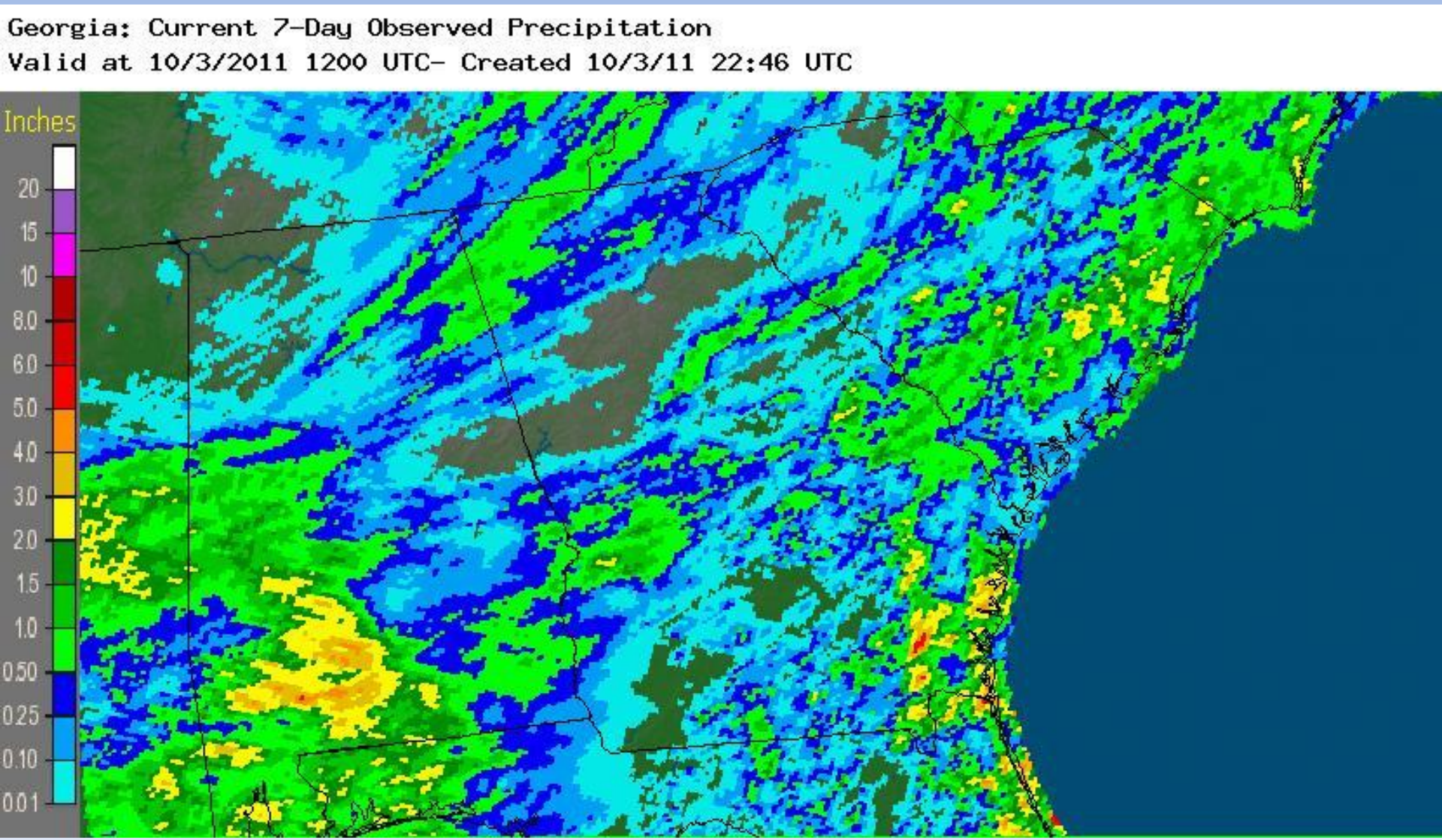


Past 180 days



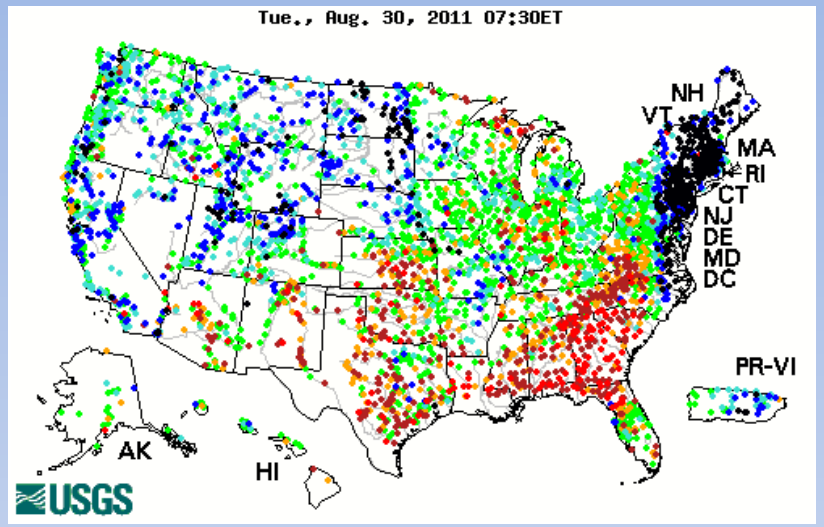
http://water.weather.gov/precip/

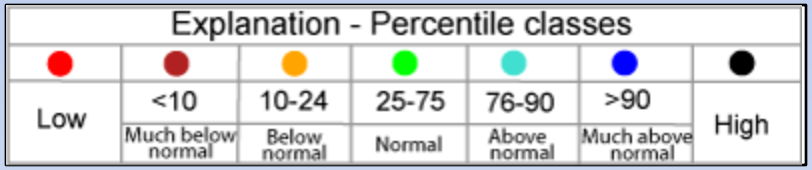
7-day Rainfall Totals



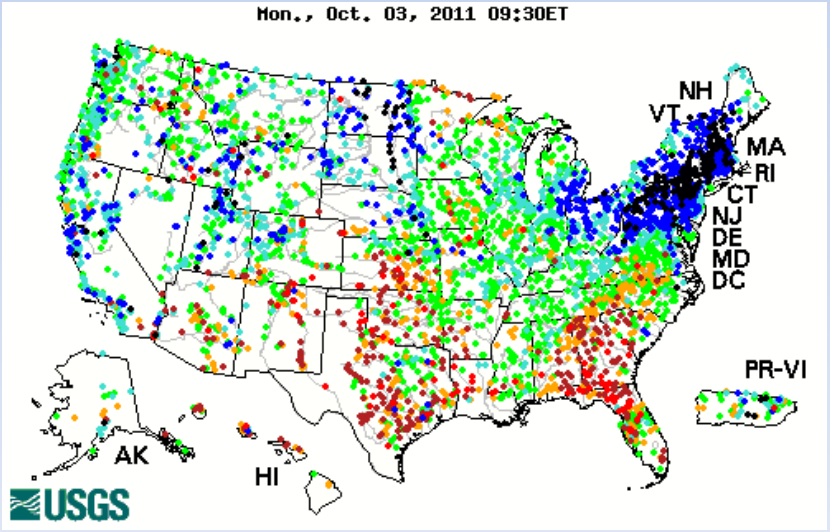
Realtime stream flow compared with historical averages

Previous Month:





Current:



http://waterwatch.usgs.gov

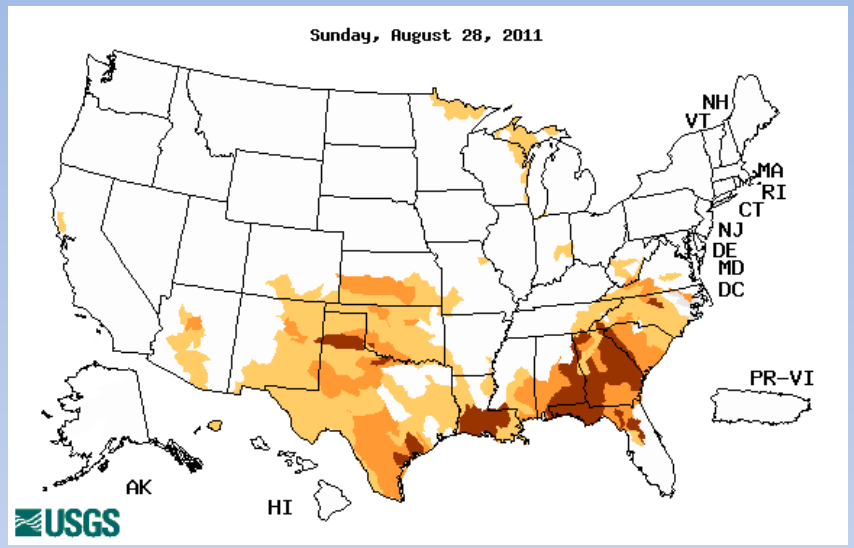
Below Normal 7-day Average Streamflows

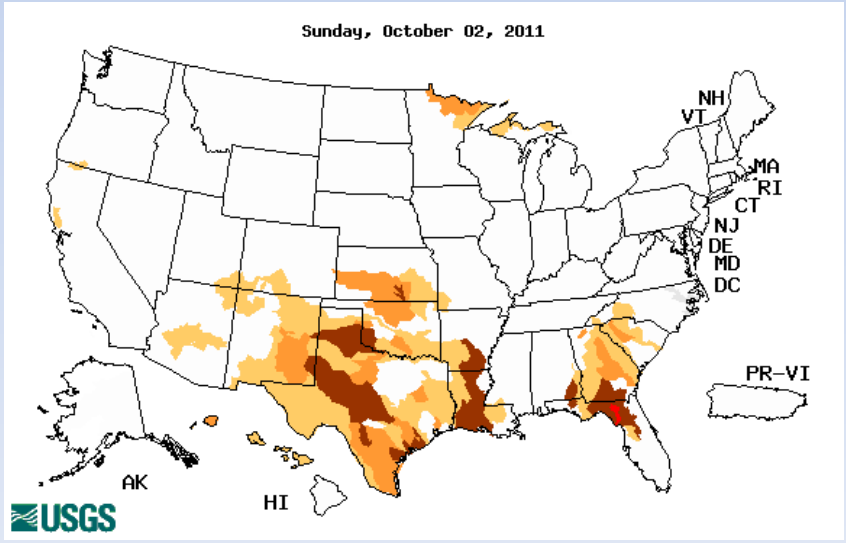
Previous month:

Below normal 7-day average streamflow as compared with historical streamflow for day shown

Current:

http://waterwatch.usgs.gov

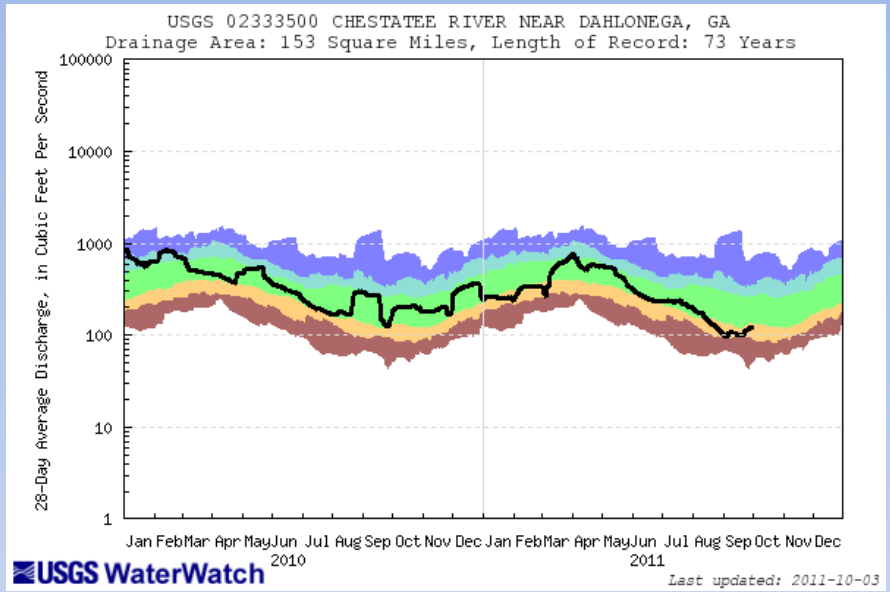




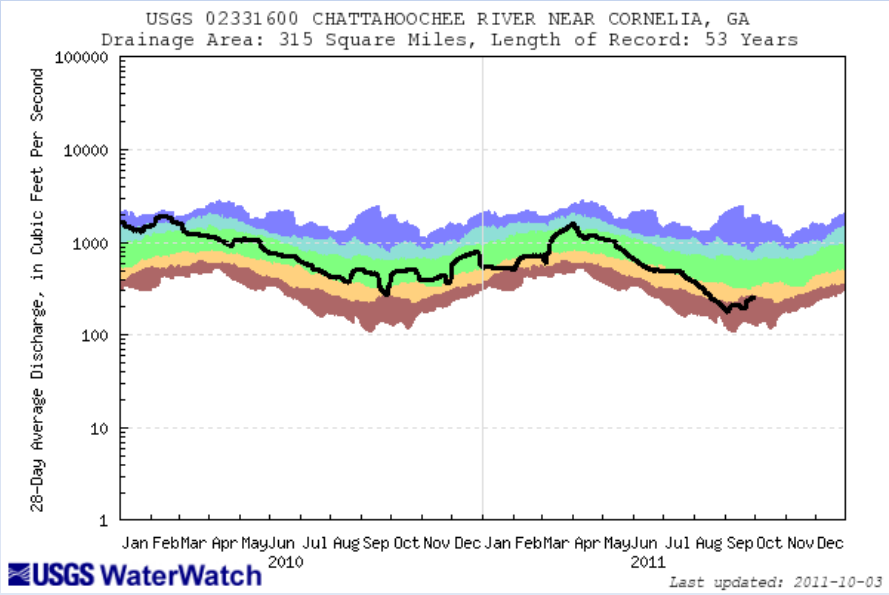
Lake Lanier Inflows

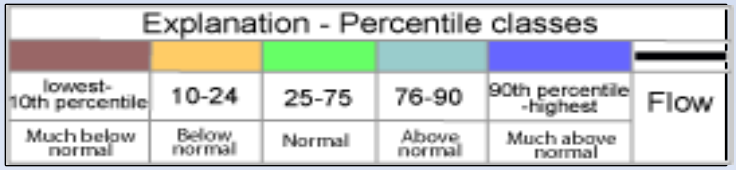
Chestatee near Dahlonega (02333500)

http://waterwatch.usgs.gov

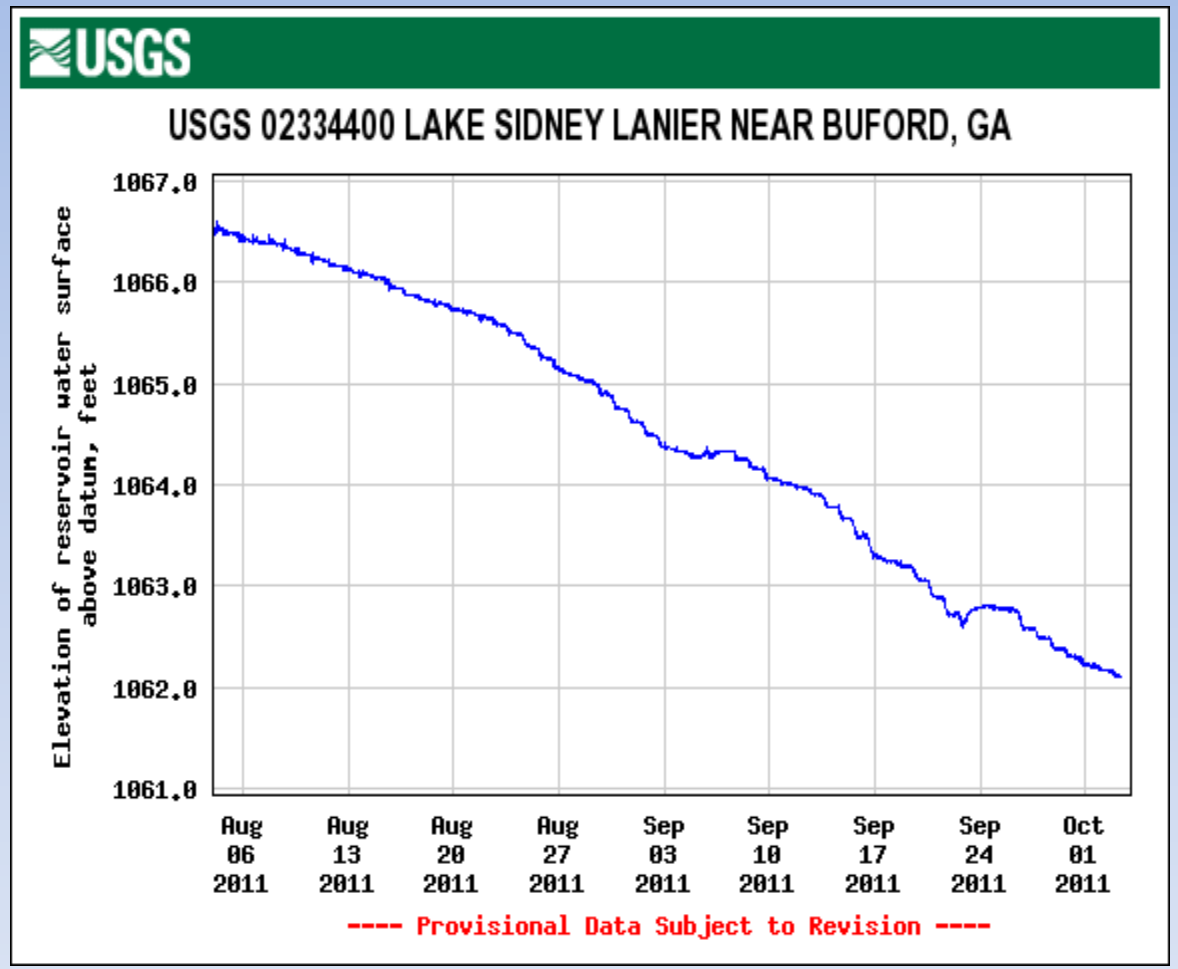


Chattahoochee near Cornelia (02331600)



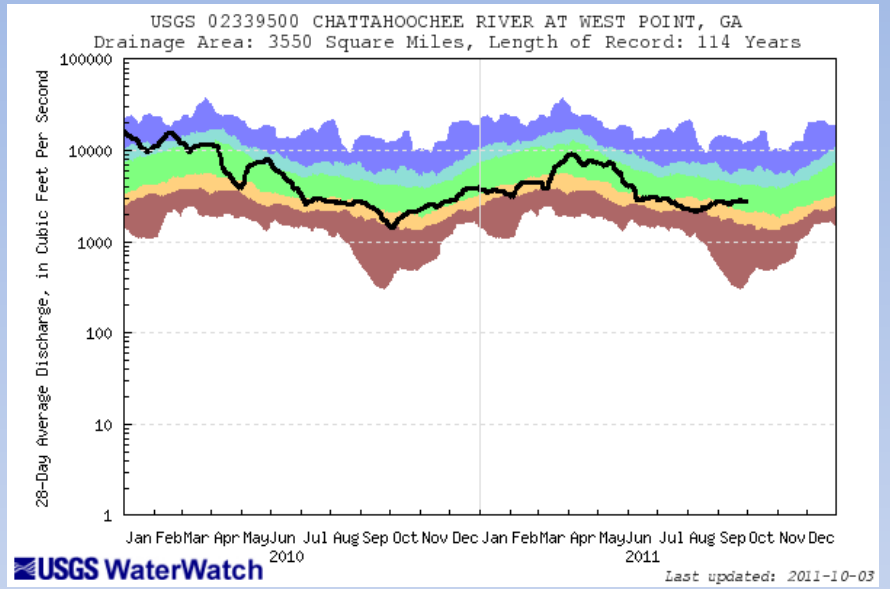


Lake Lanier Levels (02334400) for Previous 60 Days



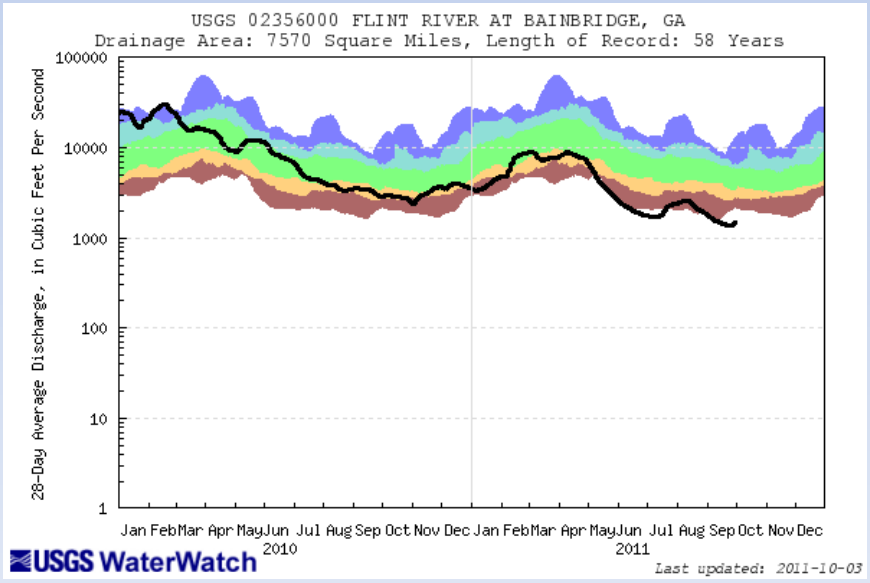
Current Streamflows

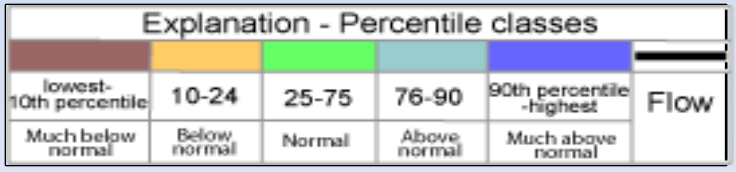
Chattahoochee at West Point (02339500)



http://waterwatch.usgs.gov

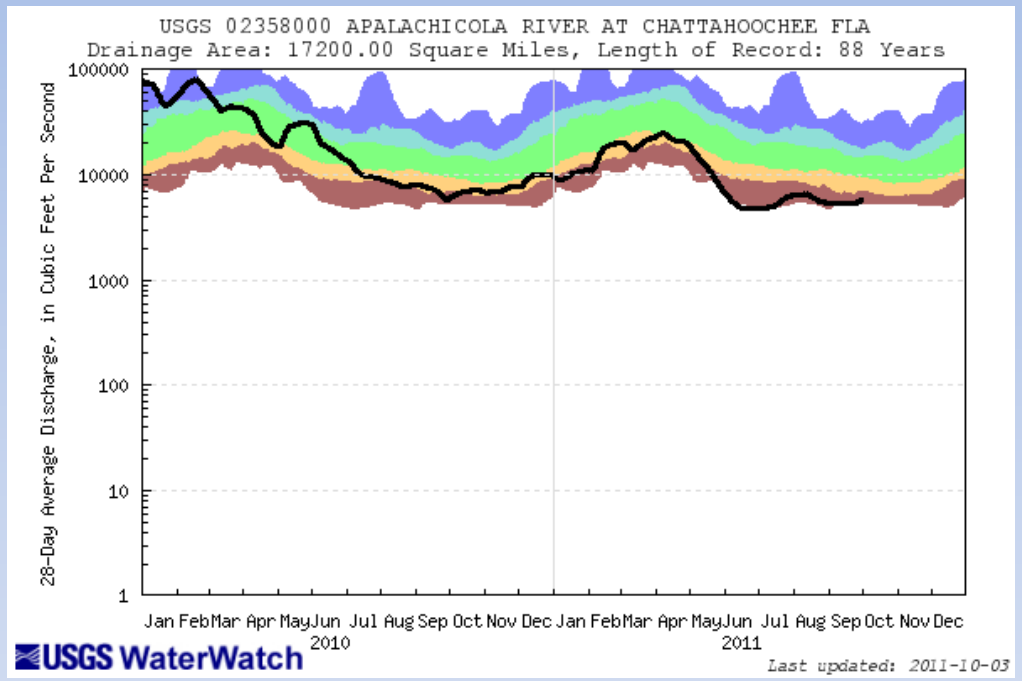
Flint at Bainbridge (02356000)

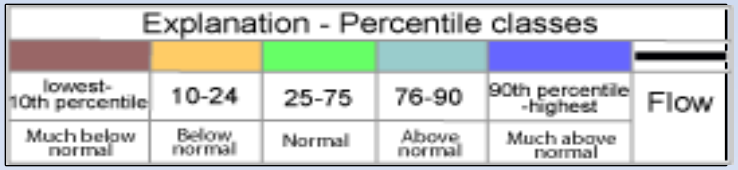




Streamflows

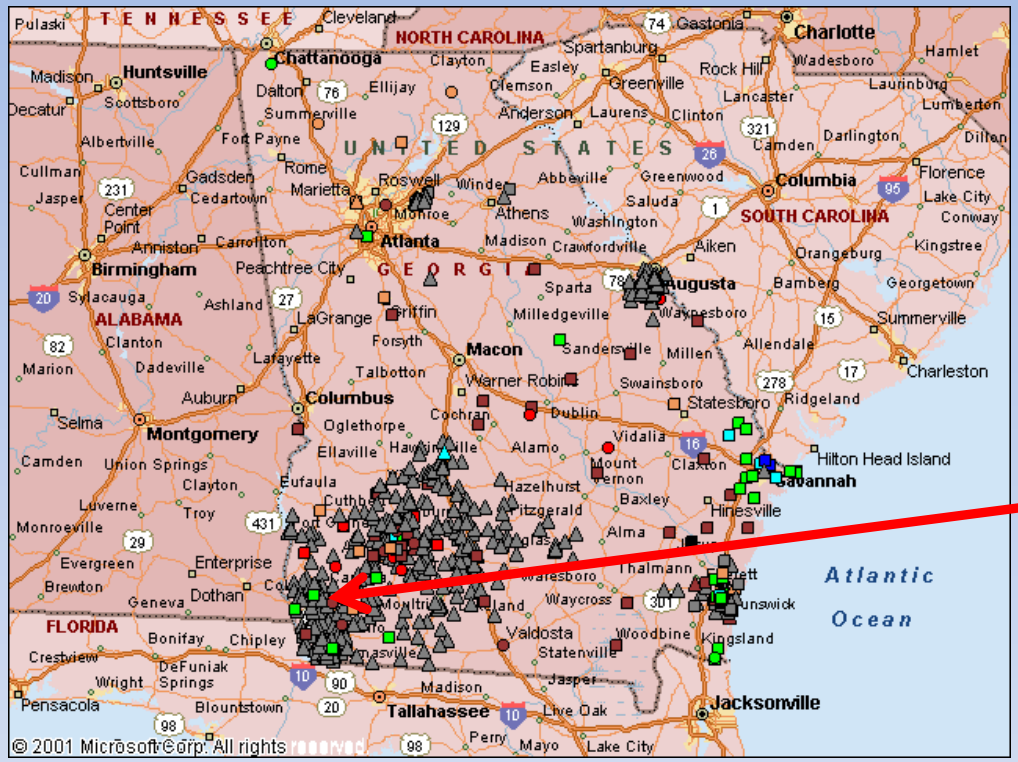
Apalachicola at Chattahoochee (02358000)

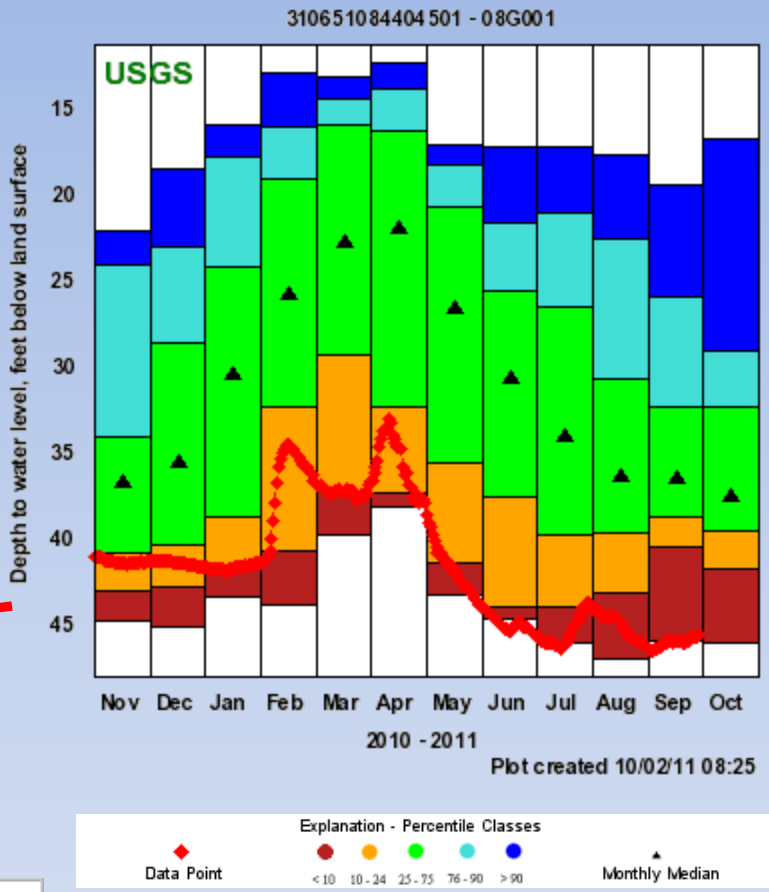


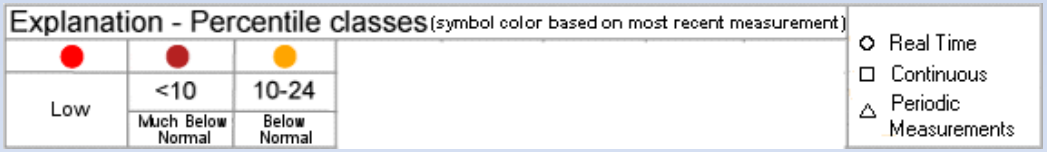


http://waterwatch.usgs.gov

Groundwater Status

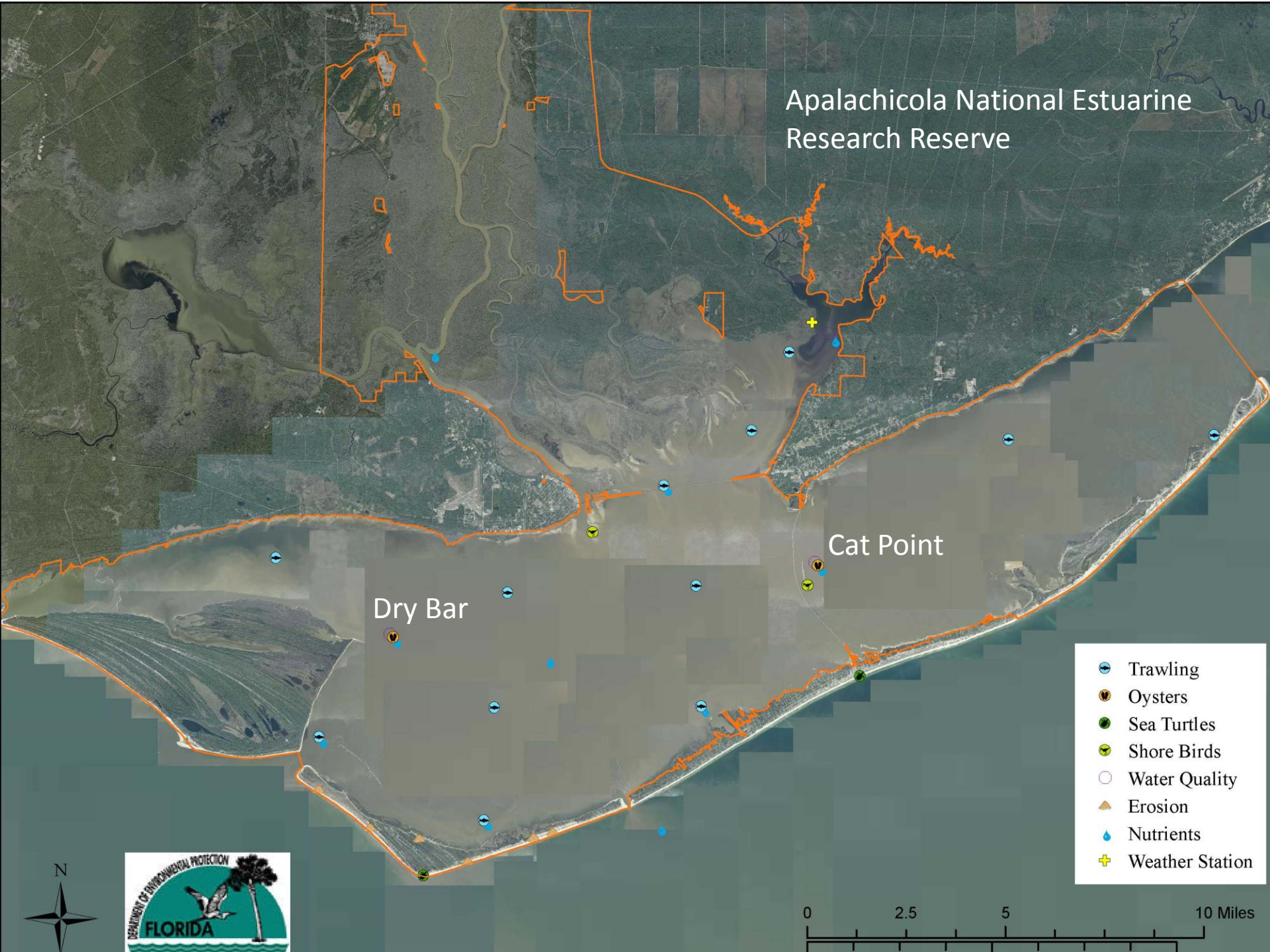




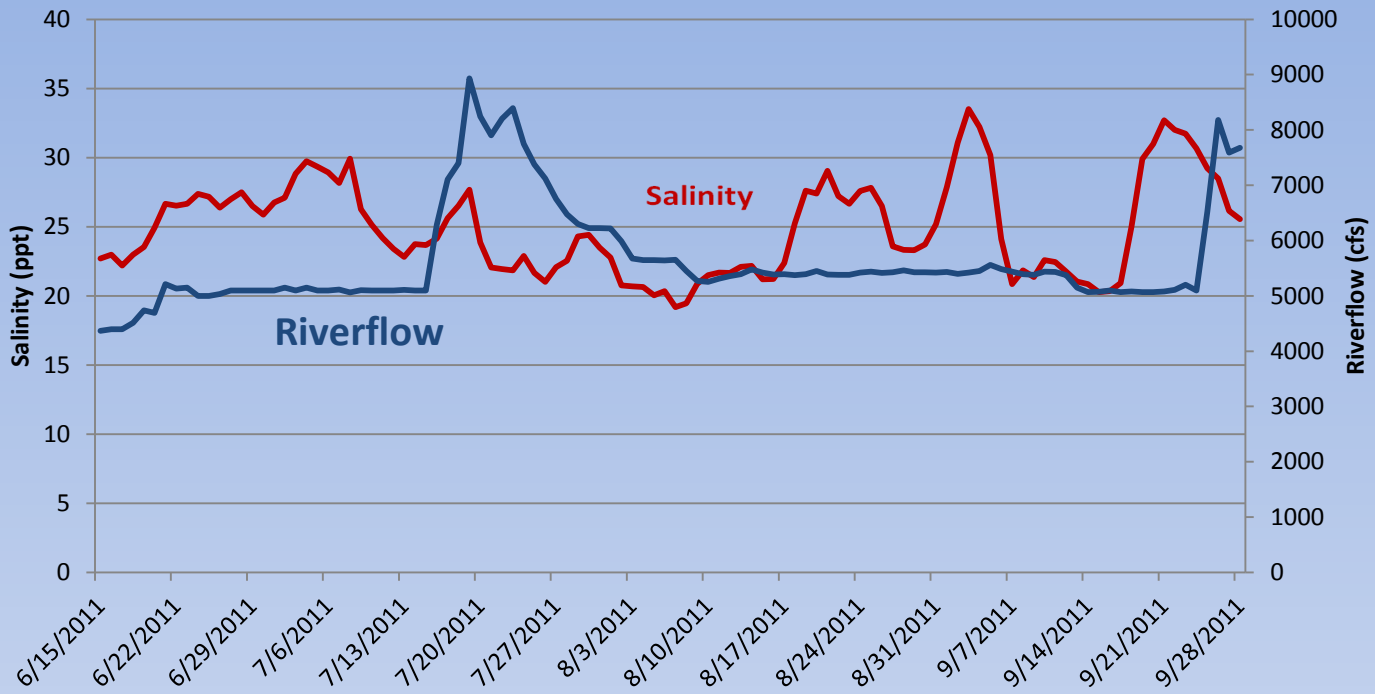


Miller County, GA
(Upper Floridan Aquifer)

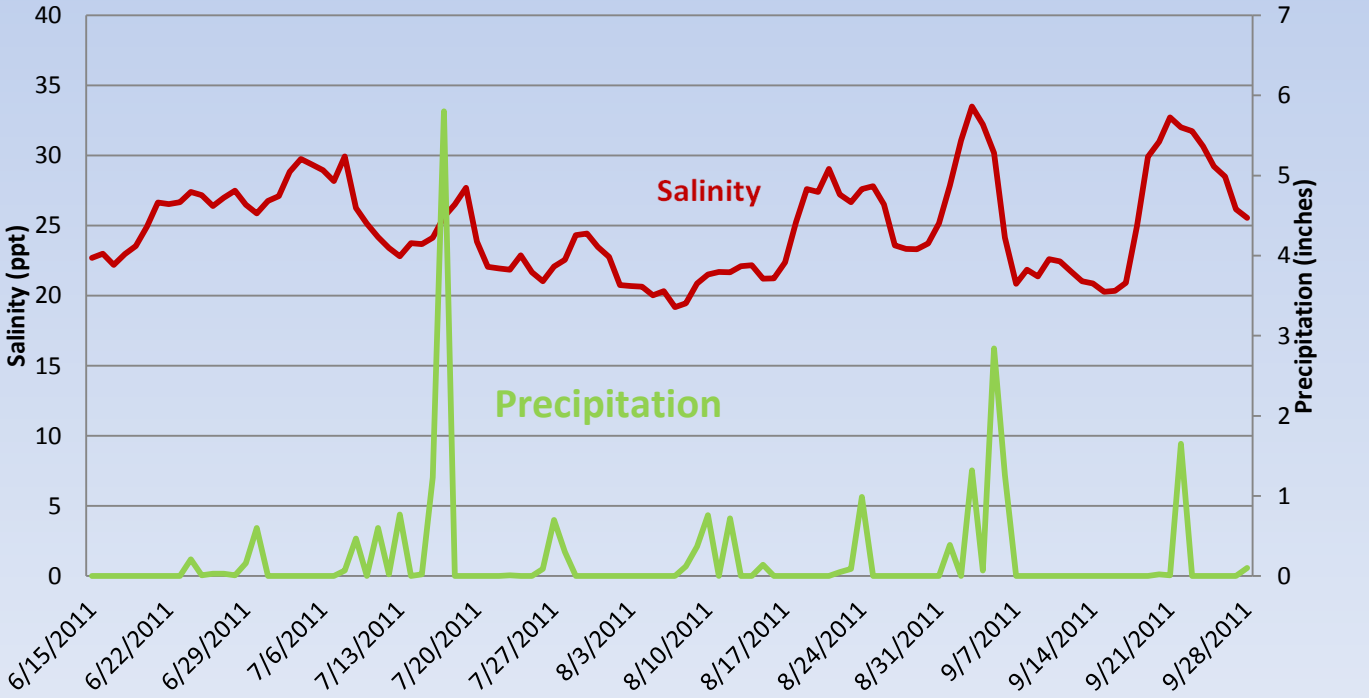
http://groundwaterwatch.usgs.gov


Apalachicola National Estuarine Research Reserve
Cat Point
Dry Bar
Trawling
Oysters
Sea Turtles
Shore Birds
Water Quality
Erosion
Nutrients
Weather Station
N
DEPARTMENT OF ENVIRONMENTAL PROTECTION
FLORIDA
0
2.5
5
10 Miles

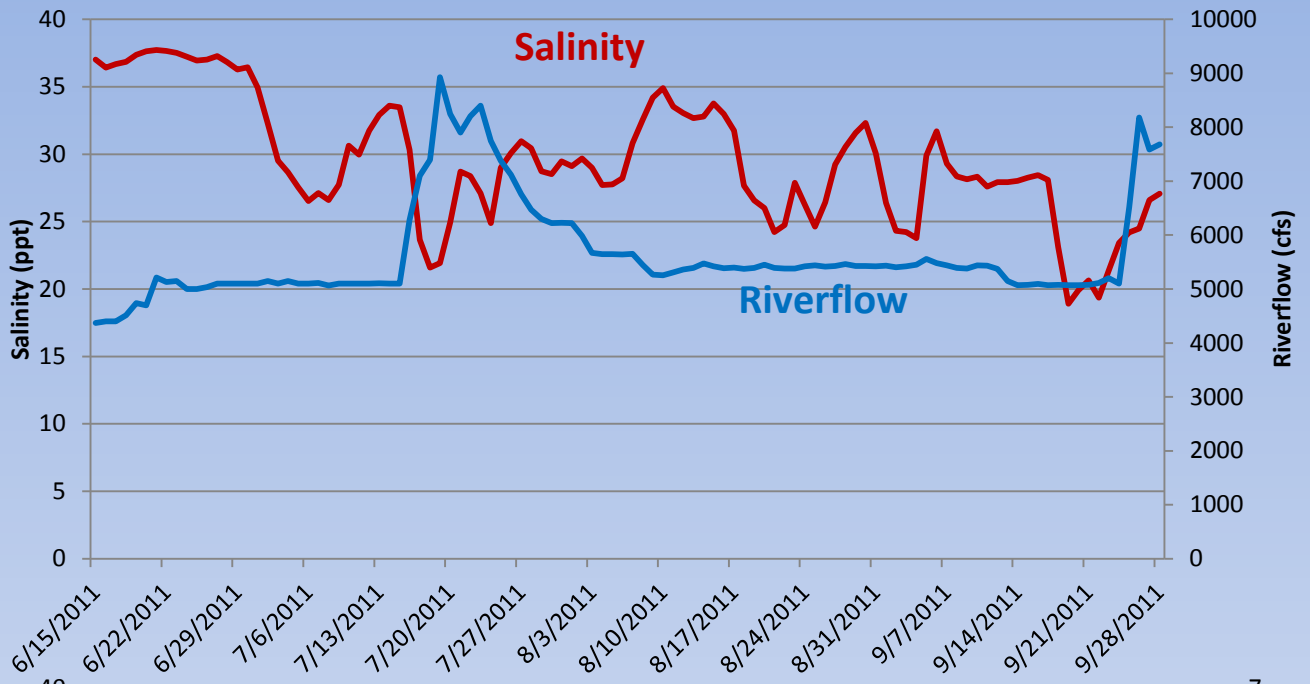
Cat Point Salinity 6/15/11 - 9/28/11 w/riverflow data from Chattahoochee, FL



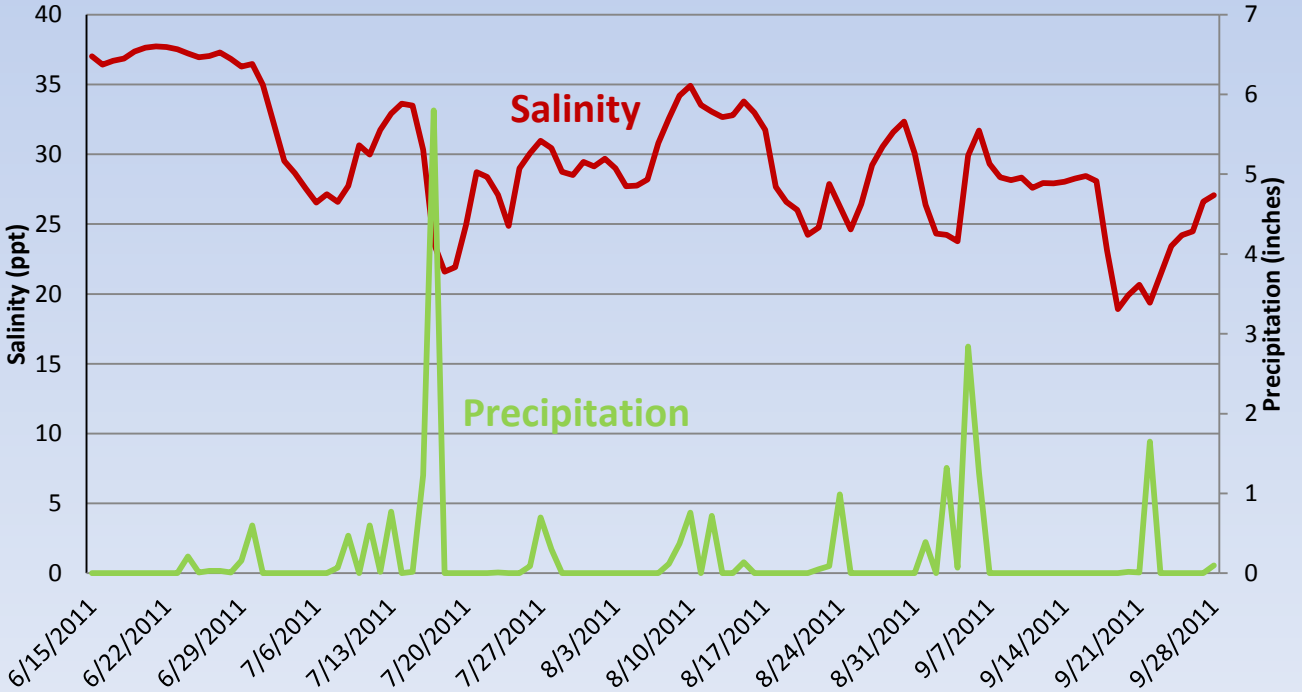
Cat Point Salinity 6/15/11- 9/28/11 w/precipitation data from Apalachicola airport



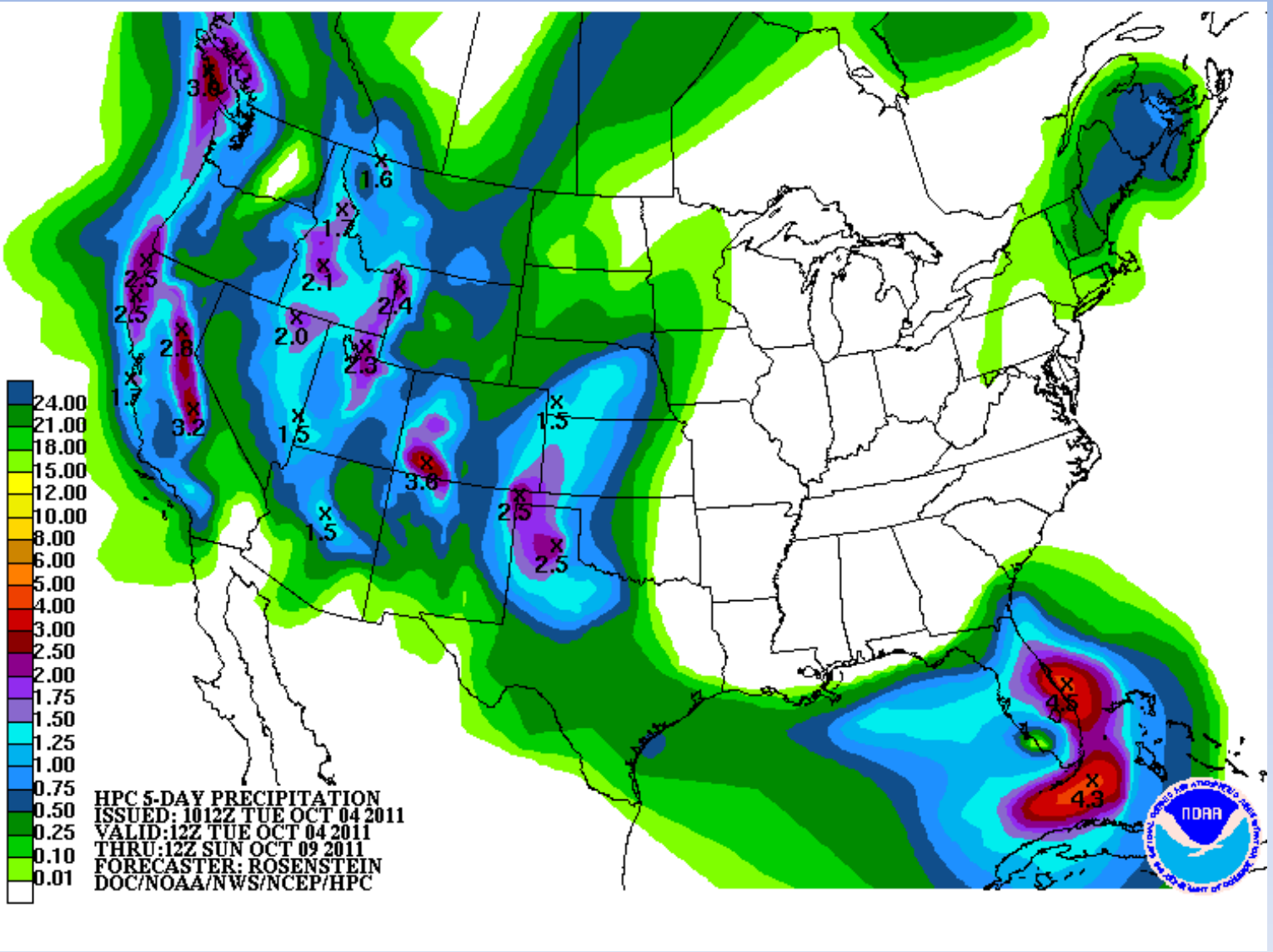
Dry Bar Salinity 6/15/11-9/28/11 w/riverflow data from Chattahoochee, FL



Dry Bar Salinity 6/15/11 - 9/28/11 w/precipitation data from Apalachicola airport

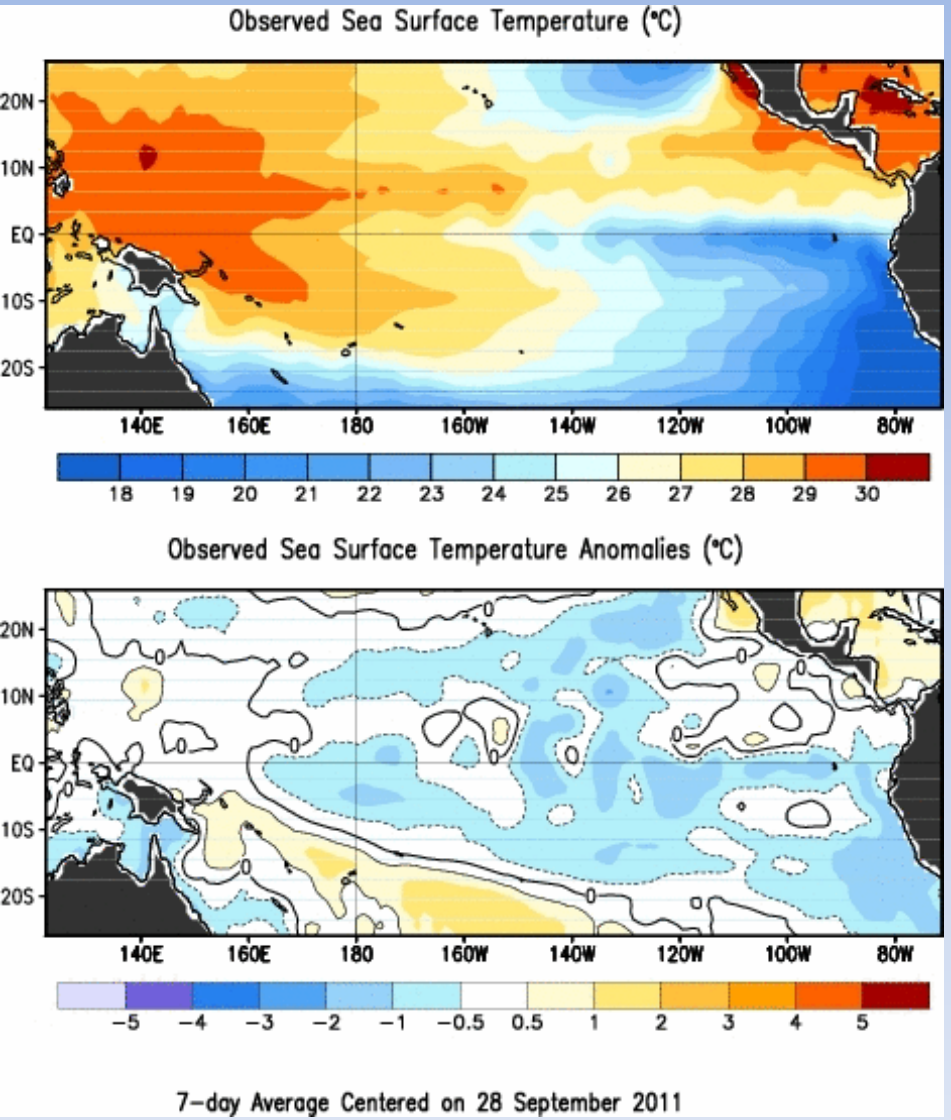


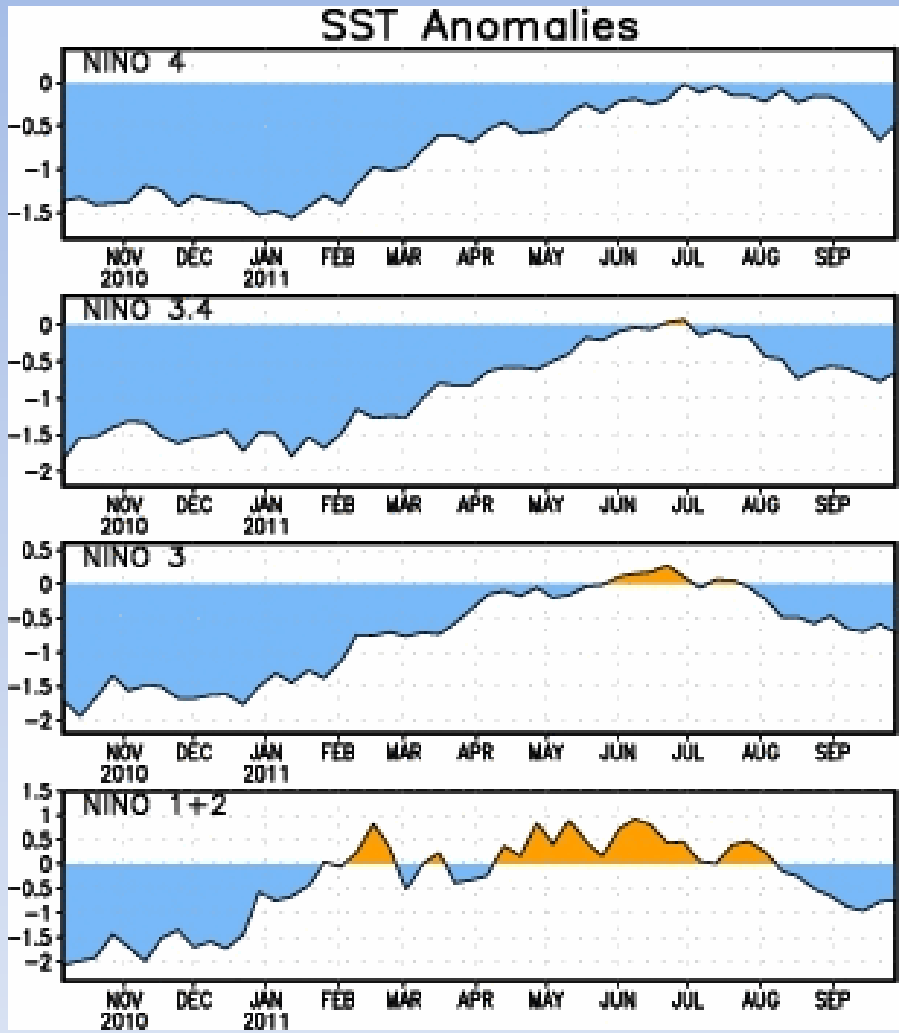
5-Day Precipitation Forecast



http://www.hpc.ncep.noaa.gov/qpf/day1-5.shtml

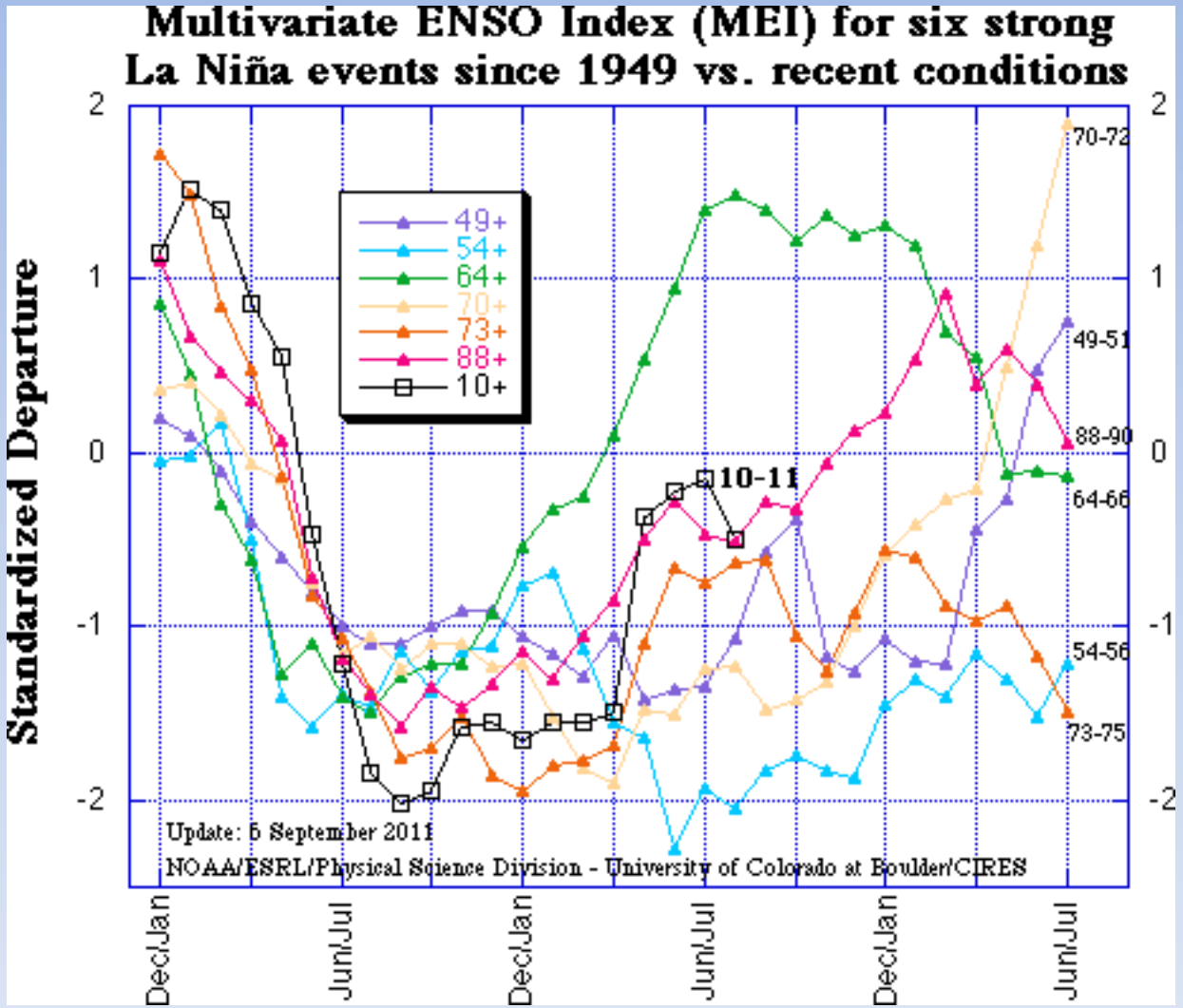
7-day average Pacific Ocean SST Anomalies





http://www.cpc.ncep.noaa.gov/products/precip/CWlink/MJO/enso.shtml

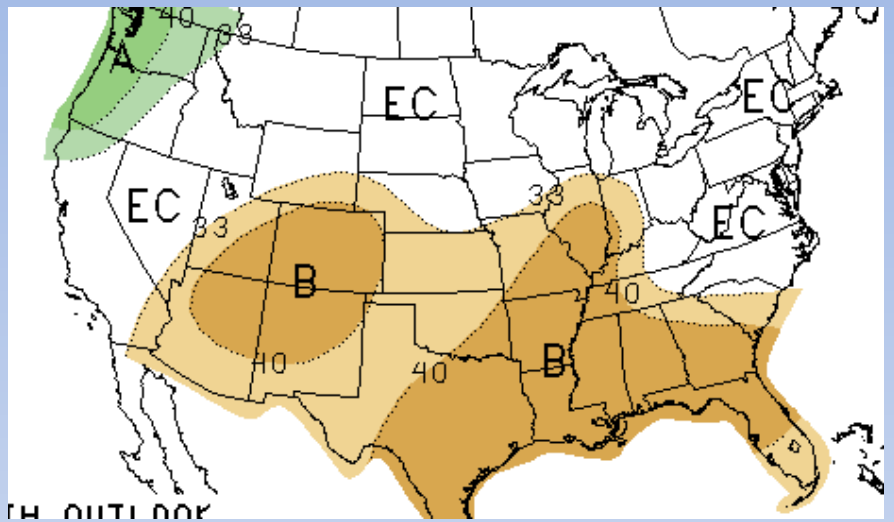
Multivariate ENSO Index: recent and six strong La Niña events



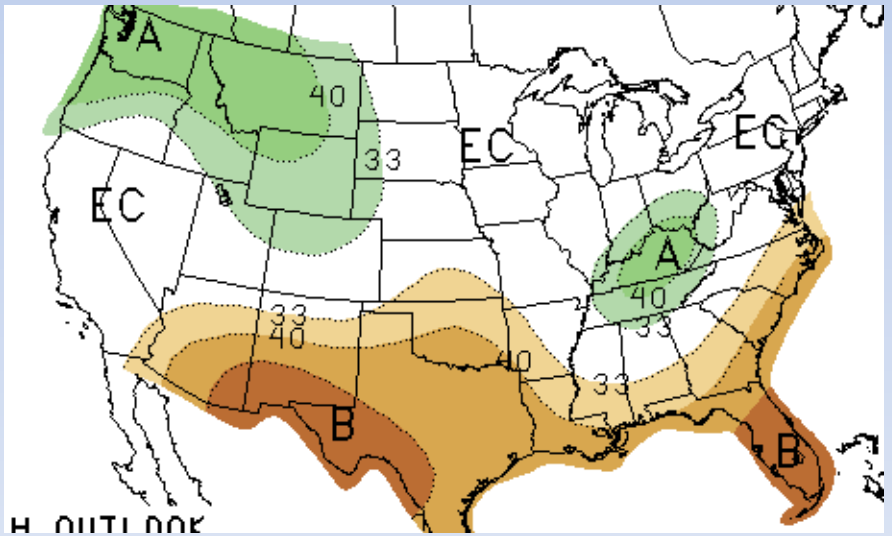
http://www.esrl.noaa.gov/psd/people/klaus.wolter/MEI/

Precipitation Outlook

3-month



Winter (DJF)

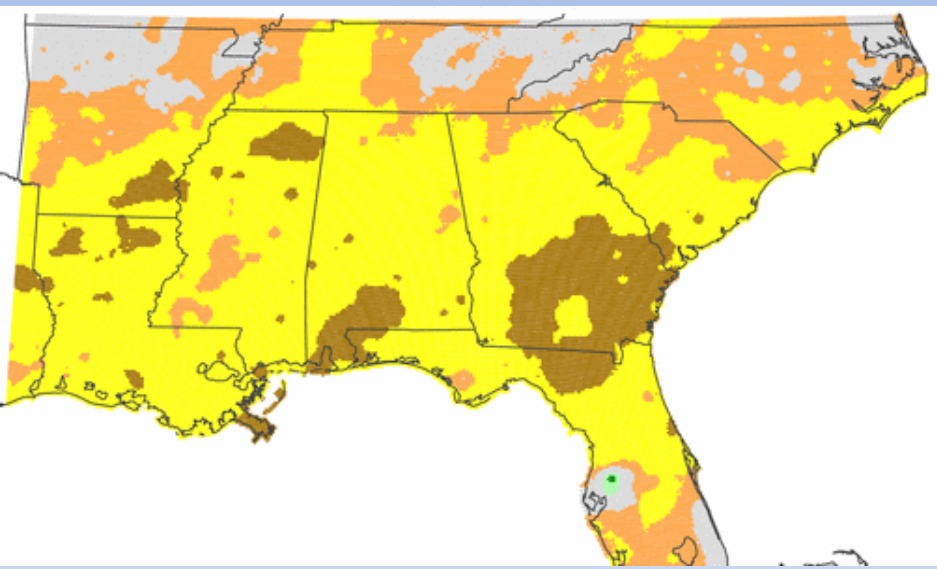


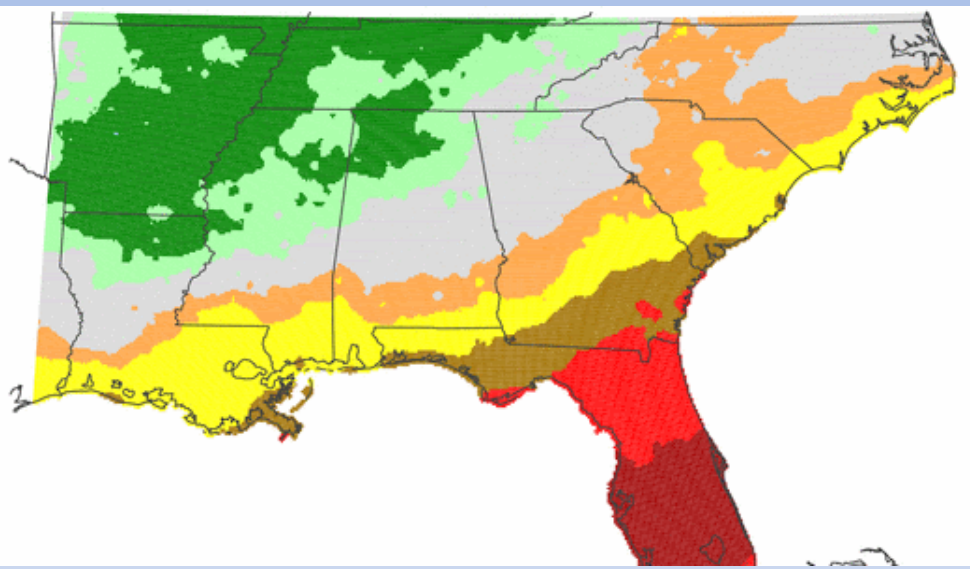
http://www.cpc.ncep.noaa.gov/products/predictions/30day/

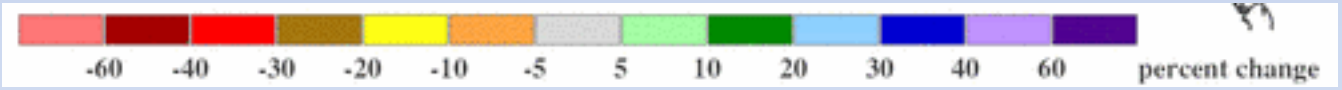
La Nina Composites

October

January



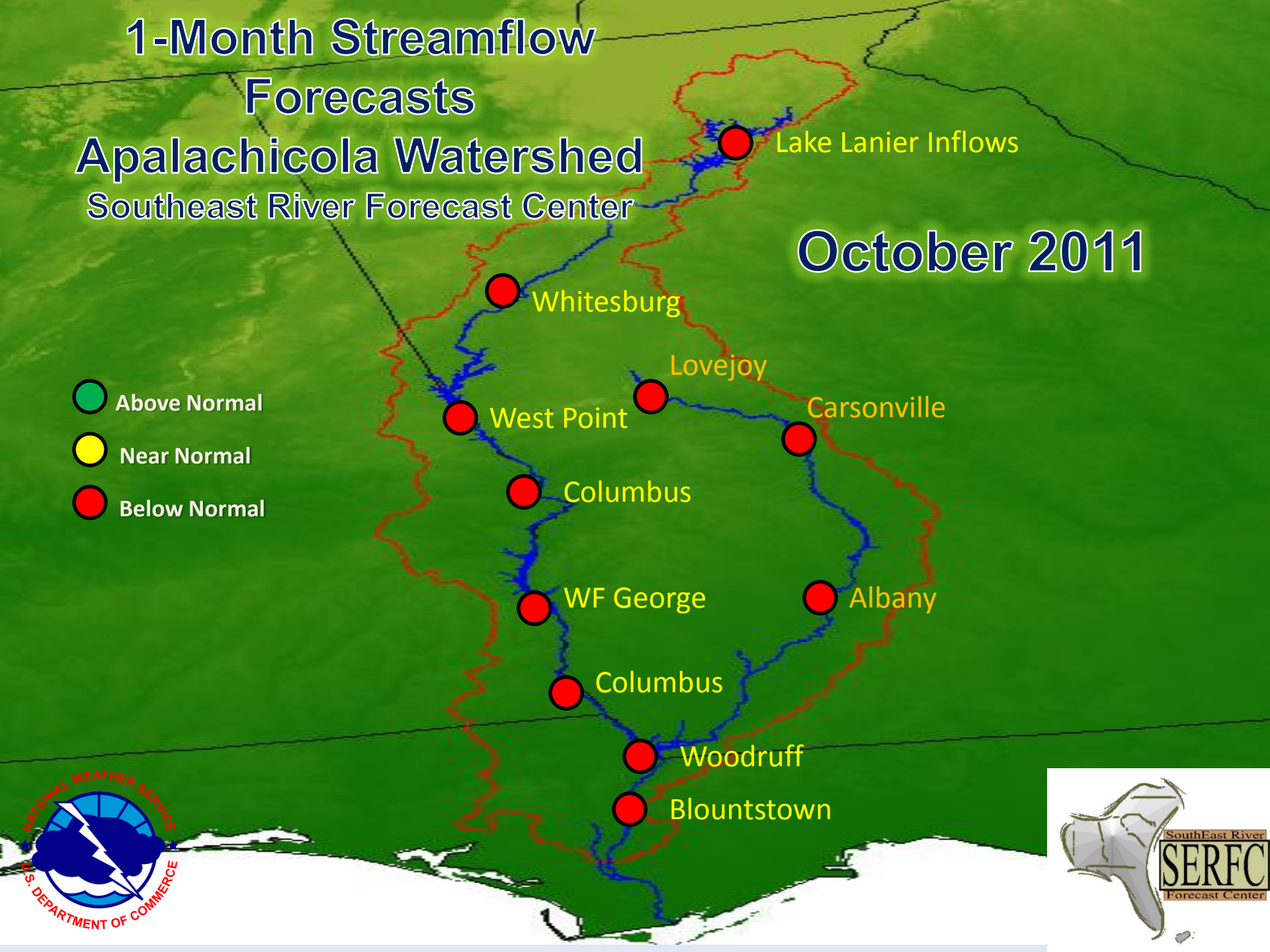


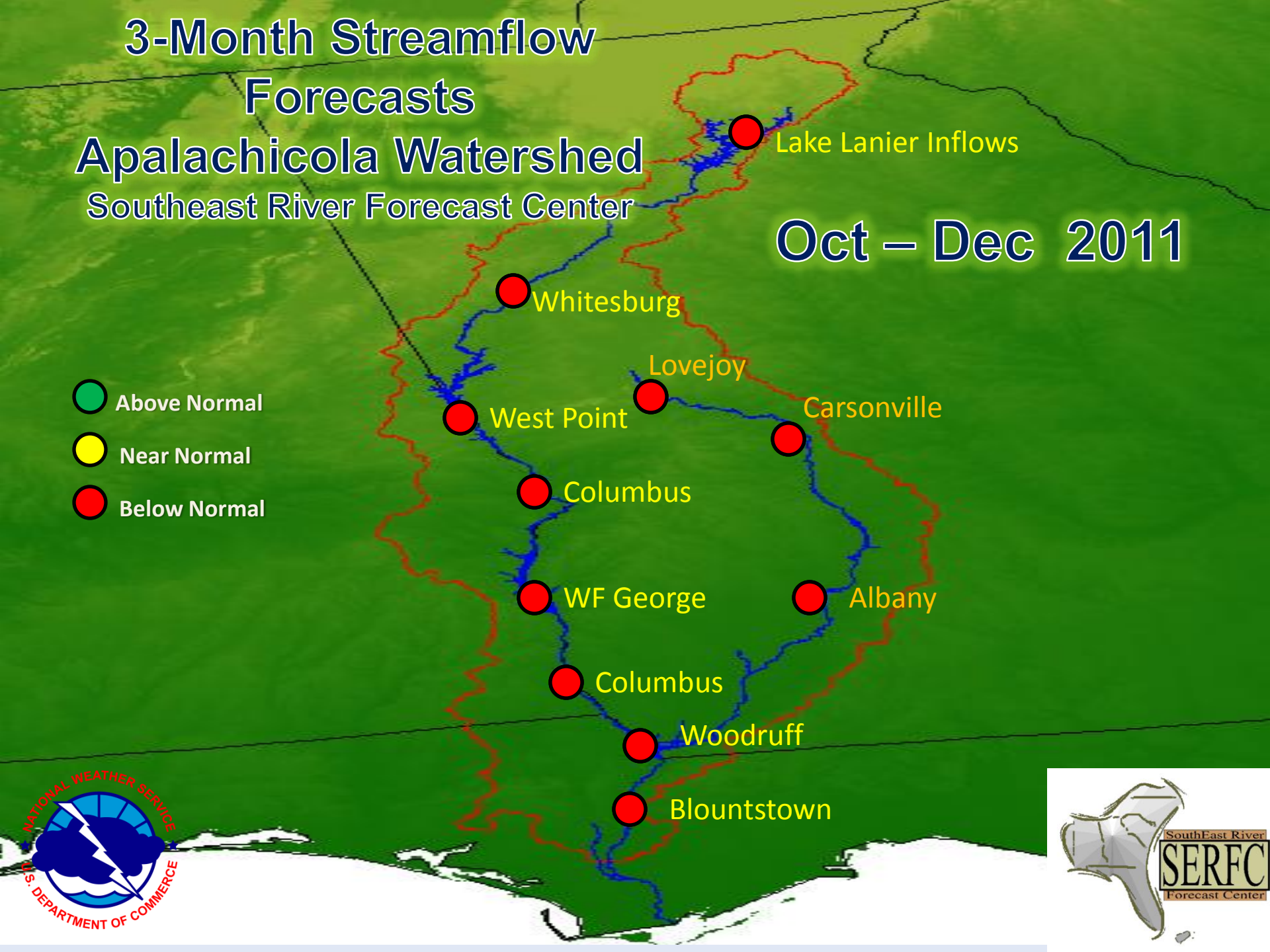


1-Month Streamflow Forecasts Apalachicola Watershed

Southeast River Forecast Center

October 2011




3-Month Streamflow Forecasts
Apalachicola Watershed
Southeast River Forecast Center
Oct – Dec 2011
Above Normal
Near Normal
Below Normal
Lake Lanier Inflows
Whitesburg
Lovejoy
West Point
Carsonville
Columbus
WF George
Albany
Columbus
Woodruff
Blountstown
NATIONAL WEATHER SERVICE
U.S. DEPARTMENT OF COMMERCE
SouthEast River
SERFC
Forecast Center

Summary

- Extreme drought conditions continue through much of the basin
- Streamflows continue to be low and are below historic record lows in the southern part of the basin
- Depth to ground water is near historic record levels in the southern part of the basin
- Salinity levels are near 25 ppt at Cat Point and 27 ppt at Dry Bar
- No precipitation is forecast in the near term
- Streamflows are forecast to be below normal through the next three months
- Because La Niña conditions continue, precipitation is expected to be low during the fall and winter and will likely be insufficient to recharge the hydrologic system of the basin

References

Speakers

David Zierden, FSU

Brian McCallum, USGS

Jenna Wanat, FL DEP

Jeffry Dobur, SERFC

Moderator

Keith Ingram, SECC/UF

Additional information

General drought information

http://drought.gov
http://www.drought.unl.edu

General climate and El Niño information

http://agroclimate.org/climate/

Streamflow monitoring

http://waterwatch.usgs.gov

Groundwater monitoring

http://groundwaterwatch.usgs.gov

Thanks!